

Patent Abstracts of Japan

PUBLICATION NUMBER

63133683

PUBLICATION DATE

06-06-88

APPLICATION DATE

26-11-86

APPLICATION NUMBER

61281009

APPLICANT: FUJITSU LTD;

INVENTOR:

HANAMITSU KIYOSHI;

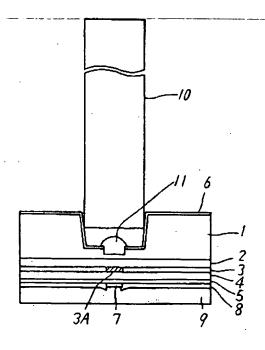
INT.CL.

H01L 33/00

TITLE

: SEMICONDUCTOR LIGHT EMITTING

DEVICE



ABSTRACT:

PURPOSE: To eliminate positioning to be conducted through monitoring of output light by controlling the position of optical fiber for the light emitting diode element by engaging an optical fiber with cylindrical cavity provided to a semiconductor substrate of transparent light emitting diode element for wavelength of light.

CONSTITUTION: A light emitting diode element and an optical fiber 10 are provided, a semiconductor substrate 1 of light emitting diode element is transparent for the wavelength of light of element, an optical fiber 10 is engaged with cylindrical cavity provided to the semiconductor substrate 1 and thereby position of optical fiber 10 for light emitting diode element is controlled. For instance, LED forms a cylindrical first cavity at the rear side of InP substrate 1, an n-side electrode layer 6 is deposited to the entire part including the side surface and bottom surface of such cavity and moreover a second cavity is coaxially formed to the bottom surface of the first cavity. In addition, a condenser lens 11 is formed by supplying silicone resin to the second cavity. The end part of optical fiber 10 is inserted into the first cavity of LED chip.

COPYRIGHT: (C)1988,JPO&Japio